

REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Claim Amendments

Claim 3 has been amended to recite the viscosity of the hydroxypropylmethylcellulose, as found on page 5, line 17 of the specification. Claim 4 has been amended to delete the intended use limitation and to make an editorial change in order to better comply with U.S. practice.

No new matter has been added to the application by these amendments.

Summary of Telephone Interview

Applicants wish to thank the Examiner for her time and helpful comments presented during the telephonic interview of January 21, 2009. During this interview, Applicants indicated that they would be conducting experiments to demonstrate the distinctions between the hydroxypropylmethylcellulose (HPMC) of the reference and the HPMC of the instant invention. Specifically, Applicants indicated that they would provide evidence that HPMC with a viscosity of 4000 cps, as in the present invention, does not work in the methods (examples) of the cited reference. The Examiner indicated that such evidence would likely be helpful in overcoming the rejections of record.

Additionally, Applicants inquired as to whether such arguments and evidence should be presented after final rejection, or together with a Request for Continued Examination. The Examiner indicated that Applicants should file the arguments and evidence (Declaration) together with a Request for Continued Examination, and the Examiner insured Applicants that she would not issue a first action final rejection.

Again, Applicants kindly thank the Examiner for her time and helpful comments.

Patentability Arguments

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Rejection Under 35 U.S.C. § 103(a)

The rejection of claims 3-5 under 35 U.S.C. § 103(a) as being unpatentable over Ohyama et al. (EP 1245232) is respectfully traversed. [Claims 1 and 2 were previously cancelled.]

The Position of the Examiner

The Examiner indicates that Applicants traversed the rejection on the basis that the trace amount of 4.8% of HPMC in Ohyama et al. is used as a coating base for the tablets with active ingredients that are unstable to light. The Examiner further notes that Applicants argued that this amount (4.8%) of HPMC cannot function as a gel-forming material or sustained-release base, is in the instant invention. Further, the Examiner states that she was unable to find any mention of HPMC 2910 with the tradename TC-5, the viscosity of the preparation, or the dissolution and/or drug release properties of the tablets in the teachings of Ohyama et al.

Applicants' Arguments

Applicants previously argued that the cited reference employs TC-5 as the HPMC, wherein the HPMC is used as a coating base for tablets. The Examiner notes that the reference does not identify the HPMC as "TC-5".

The HPMC of the reference is a coating base, while the HPMC of Applicants' recited claims is a gel forming material for sustained-release base. Applicants have amended the claims to require that the average viscosity of Applicants' HPMC is 4000 cps. Accordingly, as also discussed in the previous response, HPMC with a viscosity of 4000 cps is significantly more viscous than a common coating agent. Due to this high viscosity, the HPMC of the present invention has a property such that the material swells as it absorbs a solvent (for example, water) so that the colloid particles in the material are linked to one another to form a three-dimensional network structure, resulting in a less-fluid gel-like material (gel-forming material). Additionally, since the presence of this material (high viscosity HPMC) is a key factor for importing a sustained-release function, an abundance of the material is added to the tablets, i.e., an amount of 18 to 73wt%, as recited in Applicants' claims.

Furthermore, enclosed herewith is a Rule 1.132 Declaration by two experts in this technology field. The Declaration demonstrates that the HPMC of the cited reference and the HPMC of Applicants' claims is not the same. Specifically, the experiments in the Declaration confirm that the high viscosity HPMC (as in Applicants' claims) cannot be used as a coating base using the method described in the Ohyama et al. patent. Additionally, the Declaration demonstrates that even if the high viscosity HPMC is used as a coating base, sustained releaseability cannot be expected.

The Examiner is respectfully requested to carefully review the Rule 1.132 Declaration, which clearly demonstrates that the low viscosity HPMC employed in the Ohyama patent is quite distinct from the high viscosity HPMC (i.e., average viscosity of 4000 cps) recited in Applicants' claims.

Accordingly, it is evident that Applicants' claims are patentable over the Ohyama et al. reference. Thus, it is respectfully requested that the above-rejection be withdrawn.

Double Patenting Rejection

Applicants respectfully request that the provisional rejection of claims 3-5 on the ground of non-statutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/795,792 in view of Alderman (U.S. 4,734,285) be held in abeyance, pending an indication that the claims are otherwise allowable.

Since this application ('503) is the earlier filed of the two applications, if the double patenting rejection is the only rejection remaining in this application, while the other application ('792) is rejectable on other grounds, the double patenting rejection in the present case ('503) should be withdrawn and the patent should be issued without a Terminal Disclaimer. Please see MPEP 804 (I)(B)(1).

Discussion of Alderman Patent (U.S. 4,734,285)

Although the reference is not relied upon in the rejection, the Examiner discusses Alderman on pages 4 and 5 of the Office Action. Thus, Applicants provide the following comments regarding Alderman.

In the Alderman reference (U.S. Patent No. 4,734,285, corresponding to Japanese Patent

Application Laid-Open No. Sho. 62-149632), it is disclosed that sustained release tablets containing HPMC serving as a gel formation aid can be obtained through two types of preparation methods.

One method includes mixing an active component, additives, and HPMC powder, and subjecting the mixture to compression to provide a tablet (tablet production by direct compression method). The other method includes granulating the mixture of an active component, additives, and HPMC with the use of an appropriate solvent, drying the granulated mixture, and subjecting the mixture to compression to form a tablet (tablet production via wet granulation method).

Tablets prepared by either method should contain uniformly dispersed HPMC and active component, in order to release the accurately controlled amount of active components.

HPMC is a bulky powder that can be easily dissolved in water. As HPMC does not have superior fluidity or easy-to-granulate property, neither method provides an appropriate uniform dispersion of a trace amount of the active component in the resulting tablet. This means that it is difficult to uniformly disperse the trace amount of active component in the tablet by these methods. Accordingly, the development of a novel sustained release tablet containing a trace amount of active component cannot be achieved by the above known techniques.

Although there is no particular limitation with regard to the lowest amount of the contained active component in Alderman, an actual object to be solved is to complete a sustained release tablet containing a trace amount (1% or less by weight) of an active component and having satisfactory properties (with less variation in the contained amount and the released amount of the active component).

The present invention solves the above-discussed problems associated with the conventional technique. In particular, the present invention provides a sustained-release tablet which contains a small amount of the active component (KRP-197), for example, 1 mg or less, with a uniform distribution, which releases the active component in an accurately controlled manner. The tablet can be prepared by spraying KRP-197 solution onto an additive (partly pregelatinized starch which has a good compatibility with KRP-197) serving as a core to obtain a granular composition with superior fluidity and having a uniform distribution of the active component, adding HPMC and additives to give granules for making tablets with superior

fluidity and having a uniform distribution of the active component, and compression molding the granules into the inventive tablets.

Conclusion

Therefore, in view of the foregoing amendments and remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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